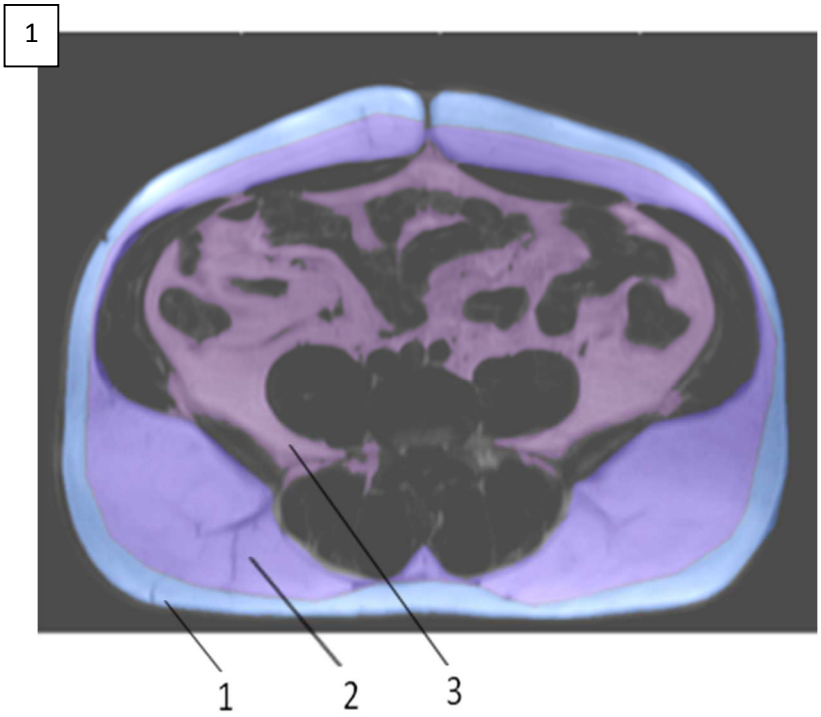
Supplemental Material A: Abdominal Magnetic resonance imaging (MRI)

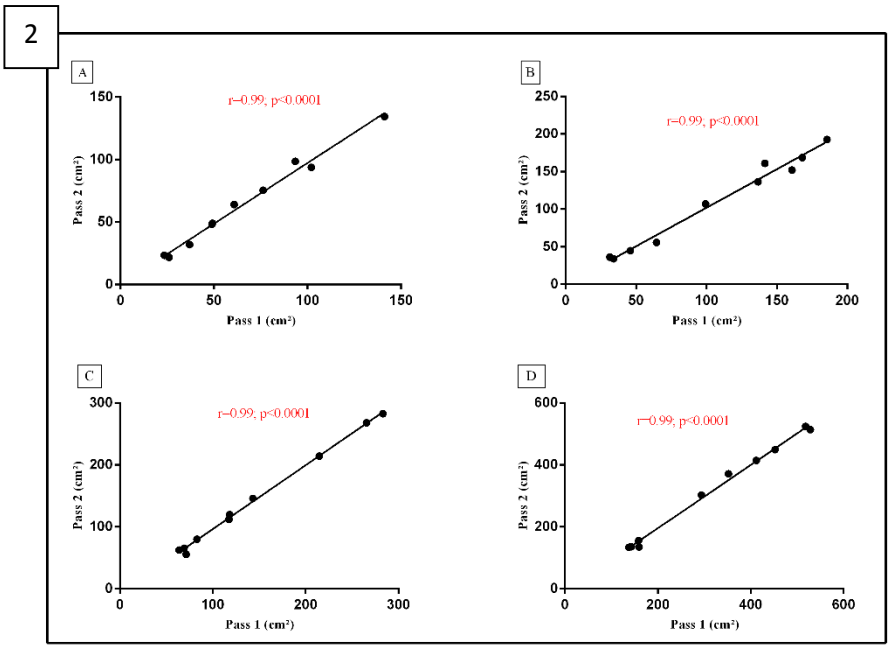
Abdominal MRI was conducted to analyze the abdominal adipose tissue (AT) distribution, at the CEMEREM Center. MRI images were acquired using a 3T-MRI scanner (Siemens VERIO), with DIXON technique. Subjects were positioned supine inside the magnet bore. Multiple slices acquisition was used and centered at the level of L4-L5. Superficial subcutaneous abdominal AT (sSAT), deep subcutaneous abdominal AT (dSAT) and visceral abdominal AT (VAT) area were manually identified on axial slices (the sSAT and dSAT areas were identified by manually mapping the fascia superficialis at the level of L4–5 intervertebral space); then the size of each of the three different areas was evaluated under an Interactive Data Language environment. Three consecutive transverse cross-sectional slices of data (14, 15 and 16 th slices) were analyzed and we calculated the mean of VAT, dSAT and sSAT areas over the three slices.

1. Example of abdominal slice centered at the level of L4–5 intervertebral space: (1) sSAT, (2) dSAT, (3) VAT.



This imaging modality and its replicability were previously validated. We analyzed the validity and the replicability of the technique with 10 volunteers.

2. Measurements of the correlation between the first and the second pass of 10 volunteers.



3. Bland-Altman analyses of VAT (A), dSAT (B), sSAT (C) and TAT (D)